

ABSTRACT

Described is a fluidic microsystem (100) comprising at least one channel (10) through which a particle suspension
5 can flow; and first and second electrode devices (40, 60) which are arranged on first and second channel walls (21, 31) for generating electrical alternating-voltage fields in the channel (10); wherein the first electrode device (40) for field shaping in the channel comprises at least one
10 first structure element (41, 51); and the second electrode device (60) comprises an area-like electrode layer (61) with a closed second electrode surface which comprises a second passivation layer (70); wherein the effective electrode surface of the first structure element (41, 51),
15 of which element (41, 51) there is at least one, is smaller than the second electrode surface; and the second passivation layer (70) is a closed layer which completely covers the second electrode layer (61).